RESOLUTION NO. 4037

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF LA HABRA ADOPTING THE CITY'S HOUSEHOLD HAZARDOUS WASTE ELEMENT PURSUANT TO THE CALIFORNIA INTEGRATED WASTE MANAGEMENT ACT OF 1989.

WHEREAS, the California Integrated Waste Management Act of 1989, (Assembly Bill 939 and its amendment Assembly Bills 1820 and 2702), was established, which requires that the City of La Habra prepare, adopt and submit to the County of Orange a Source Reduction and Recycling Element and a Household Hazardous Waste Element (HHWE),that proposes programs to safely collect, recycle, treat and dispose of household hazardous wastes generated by households within the City's jurisdiction; and

WHEREAS, the City Council on July 1, 1991 adopted the Source Reduction and Recycling Element pursuant to Public Resource Code Division 30, Sections 40000, et seq., which provides the legal authority and requirement of Assembly Bill 939.

WHEREAS, pursuant to Public Resource Code, Division 30, Sections 41500 to 41510, Household Hazardous Waste Element, which provides the legal authority requirements of Assembly Bill 2707, the City of La Habra held a duly noticed public hearing on June 18, 1991, on the City of La Habra's Preliminary Draft HHWE and also obtained written comments during the public comment period; and

WHEREAS, pursuant to Title 14, Division 7, Chapter 9, of the California Code of Regulations, the City of La Habra has conducted a second public hearing, on July 30, 1991, on the City of La Habra's Final Draft of the HHWE and the City Council has considered all the comments of the members of the Council, the public and other reviewing agencies;

NOW THEREFORE, the Council of the City of La Habra hereby resolves as follows:

SECTION 1: The Council has considered and hereby approves Negative Declaration 90-15, prepared for the HHWE and finds that the project will not have significant environmental effects, as shown in said Negative Declaration, for the purposes of the California Environmental Quality Act pursuant to Public Resources Code Section 21000 et seq..

SECTION 2: The City Council hereby approves the HHWE attached hereto as Exhibit "A" and made a part of hereof by this reference.

SECTION 3: The City Council hereby directs the City Manager to transmit the HHWE on behalf of the City of La Habra to the County for incorporation into the Countywide Integrated Waste Management Plan.

PASSED AND ADOPTED, this 30th, day of July, 1991.

James A. Flora for
John C. Holmberg, Mayor

ATTEST:

Sharie L. Apodaca
Sharie L. Apodaca, City Clerk

I, Sharie L. Apodaca, City Clerk of the City of La Habra, do hereby certify that the above and foregoing is a true and correct copy of Resolution No. 4037 , introduced and adopted at a special public meeting of the City Council of the City of La Habra held on the 30th day of July, 1991 by the following vote:

AYES:	COUNCILMEMBERS:	Mahoney, Garcia, Flora
NOES:	COUNCILMEMBERS:	None
ABSENT:	COUNCILMEMBERS:	Cheverton, Holmberg
ABSTAIN:	COUNCILMEMBERS:	None

Witness by hand and the official seal of the City of La Habra this 30th, day of July 1991.

Sharie L. Apodaca
Sharie L. Apodaca, City Clerk

Dated: July 30, 1991

RESOLUTION NO. 4037
Exhibit "A"

CITY OF LA HABRA
HOUSEHOLD HAZARDOUS WASTE ELEMENT

FINAL DRAFT

CITY OF LA HABRA
HOUSEHOLD HAZARDOUS WASTE ELEMENT

Prepared for

CITY OF LA HABRA
CIVIC CENTER, POST OFFICE BOX 337
201 EAST LA HABRA BOULEVARD
LA HABRA, CALIFORNIA 90631
(213) 905-9700

Prepared by

KLEINFELDER, INC.
1370 VALLEY VISTA DRIVE, SUITE 150
DIAMOND BAR, CALIFORNIA 91765

July 1, 1991

HOUSEHOLD HAZARDOUS WASTE ELEMENT
FOR THE
CITY OF LA HABRA

TABLE OF CONTENTS

TABLES

1 INTRODUCTION

The amount of solid waste generated in California, coupled with the diminishing landfill space and potential adverse environmental impacts from landfilling, constitutes an urgent need for State and local agencies to enact and implement an Integrated Solid Waste Management Program.

1.1 Integrated Solid Waste Management Program

Integrated Solid Waste Management involves using a combination of technologies and programs to manage the municipal waste stream. An integrated system is designed to address a specific set of local solid waste and household hazardous waste management problems. Integrated system operations are based on local resources, economics, and environmental impacts. The system may use several individual programs that handle targeted portions of the municipal waste stream. These programs are designed to compliment each other and address source reduction, recycling, composting, environmentally safe waste transformation, and environmentally safe land disposal.

The purpose of the Integrated Solid Waste Management Program is to:

- reduce, recycle, and reuse solid waste and household hazardous waste generated in the State of California to the maximum extent possible;
- improve the regulation of existing solid waste landfills;
- ensure that new solid waste landfills are environmentally sound;
- streamline permitting procedures for solid waste and hazardous waste management facilities, and;
- specify the responsibilities of local governments in developing and implementing Integrated Solid Waste Management Programs.

1.2 Legislation

In 1989, the California State Legislator declared the responsibility of solid waste and household hazardous waste management to be shared between the State and local governments. Thus, the California Waste Management Act of 1989 (Assembly Bill 939, and its amendments Assembly Bills 1820 and 2707) was established. This act requires the State of California to require local agencies to make adequate provisions for solid waste and household hazardous waste handling within their respective jurisdictions by promoting:

- Source Reduction
- Recycling
- Composting
- Environmentally Safe Waste Transformation, and
- Environmentally Safe Land Disposal

The Act also directs local agencies to maximize the use of source reduction, recycling, and composting technologies to reduce solid waste quantities by 25% by 1995 and by 50% or as much feasible by 2000.

1.3 Legal Authority and Planning Guidelines

The Public Resources Code (PRC), Division 30, Sections 40000 through 41955, provides the legal authority and requirements of Assembly Bill 939 (AB 939), Assembly Bill 1820 (AB 1820), Assembly Bill 2707 (AB 2707), and Title 14, California Code of Regulations (CCR). Title 14, California Code of Regulations, Division 7, Chapter 9, Articles 3, 6.1, 6.2, 7 and 8 provides the planning guidelines and procedures for preparing and revising both the city and county Source Reduction and Recycling Elements (SRREs), Household Hazardous Waste Elements (HHWEs) , and county Integrated Solid Waste Management Plans. This document has been prepared in compliance with those regulations and published guidelines.

1.4 Source Reduction and Recycling Element and Household Hazardous Waste Element

Each city in the State of California must prepare and adopt a SRRE and HHWE on or before July 1, 1991 for all incorporated areas within its jurisdiction, and each county in the State must prepare and adopt a similar SRRE and HHWE on or before July 1, 1991 for all unincorporated areas within its jurisdiction. These elements must comply with the California Environmental Quality Act (CEQA) pursuant to the Public Resources Code section 21000, the SRRE must include the following components:

- Waste Characterization Component
- Source Reduction Component
- Recycling Component
- Composting Component
- Special Waste Component
- Education and Public Information Component
- Disposal Facility Capacity Component
- Funding Component, and
- Integration Component

While the components for the HHWE have yet to be defined the following components have been addressed in this document:

Statement of Goals and Objectives
Existing Conditions Descriptions
Evaluation of Alternatives
Program Selection
Program Implementation
Monitoring and Evaluation
Education and Public Information
Funding

1.4.1 Public Hearings and Meetings

Development of the City's SRRE and HHWE must be guided by an effective planning process including participation of the general public, government agencies, and private industries. Methods to involve these parties will be public hearings and informative meetings that are advertised in local newspapers 30 days in advance of the hearing or meeting. At these hearings and meetings, the general public, affected governmental entities, and private industries shall be granted the opportunity to respond to the city's objectives, policies, and actions.

1.4.2 County Local Task Force (LTF)

Each county in the State of California must have established a Local Task Force (LTF) on or before March 1, 1990 to assist the cities in coordinating the development of their SRREs and HHWEs. That LTF is also responsible for development of the County Integrated Solid Waste Management Plan (CoISWMP). The cities' SRRE, HHWE plans and the county's SRRE and HHWE plans will be incorporated into the CoISWMP.

1.4.3 California Integrated Waste Management Board (CIWMB)

The CIWMB was established to monitor local government compliance with the regulations of Assembly Bill 939, its amendments Assembly Bills 1820 and 2707, and Title 14 CCR, and to review and approve the cities' and counties' SRREs, HHWEs and the counties' Integrated Solid Waste Management Plans.

1.4.4 Review Process

The City of La Habra will submit a preliminary draft of its SRRE and HHWE to the adjoining cities of La Mirada, Whittier, Fullerton, and Brea, the Orange County Solid Waste Management Department, the Southern California Association of Governments (SCAG), the Local Task Force, and the California Integrated Waste Management Board. These agencies will have a maximum of 45 days to review the plan from the time of submittal.

The City of La Habra will send, 45 days prior to the public hearing for the adoption of the SRRE and HHWE, a copy of its final draft SRRE and HHWE to the Local Task Force for review.

1.5 City of La Habra Background Information

Several factors influence the development of a SRRE and HHWE. Each city has social, physical, and infrastructural variables that mandate a unique approach to SRRE and HHWE development. The following discussion identifies those variables.

The City of La Habra is located between the hills of La Habra Heights and the smooth lands of Fullerton, hence its name meaning "a pass through the hills." La Habra has grown from a citrus community to a centrally located community within the Los Angeles-Orange County metropolitan area. The city is 99% developed: 54.77% of the land use is residential, 17.61% is industrial, and 8.76% is commercial with the remainder in streets, public use, and open space. The sphere of influence by the City of La Habra covers 7.3 square miles as designated by the Local Agency Formation Commission. This area is also referred to as the total planning area and is covered by the General Plan.

The City of La habra is approximately 50,000 with close to one-third of the population under 24 years of age. The median education 12.8 years and the per capita income is $15,576. Per household is approximately $42,119. In 1989, 18,644 housing units were available: 10,500 single family residences and 7,503 apartment/multi-unit residences (La Habra General Plan 2020).

1.6 Introduction to Household Hazardous Waste

Household hazardous waste (HHW) is a unique waste stream in that it overlaps the distinction between solid waste and hazardous waste. State law requires programs to address HHW as part of both the Integrated Solid Waste Management Act of 1989 (AB 939) and the Tanner hazardous waste management planning legislation (AB 2948). Although federal law exempts HHW from regulation, California law does not include a small quantity exemption and requires proper disposal of all materials classified as hazardous. These requirements, however, are not vigorously enforced for HHW because of the difficulty and expense of managing such dispersed generation sources. Programs and collection facilities to encourage voluntary compliance with the law are being implemented in Orange County. These programs are expensive and are not yet an institutionalized part of solid waste and hazardous waste management. In addition, limited public awareness still results in HHW being disposed of illegally in solid waste landfills and into storm drains and sanitary sewers. The potential effect of this illegal disposal is contamination of soil, groundwater, and surface water in Orange County.

Section 25163 of Article 6, Chapter 6.5 of the Health and Safety Code states that residents transporting less than 50 pounds or five gallons of HHW for disposal in a single trip are not subject to extensive state and federal hazardous waste regulations. However, the HHW must be properly disposed of at a permitted hazardous waste facility (Class I). Most non-hazardous municipal solid wastes are disposed of in non-hazardous waste landfills (Class III). According to California regulations, a Class III landfill cannot accept hazardous wastes of any quantity; therefore, it cannot accept HHW that are included in the residential trash.

1.7 Definition of Household Hazardous Waste

HHW includes consumer products that meet the definition of hazardous waste in Section 25117 of the California Health and Safety Code or satisfy the criteria listed in Title 22, Section 66693 of the California Administrative Code (ignitable, poisonous, corrosive, reactive). Other specific relevant categories include:

- Wastes that contain any identified hazardous substance or pollutant that may have an adverse effect on the beneficial uses of waters of the state

- Wastes that contain an identified substance that is carcinogenic, mutagenic or teratogenic in humans or animals

- Waste identified as hazardous when released into the air.

HHW are typically small quantities of a wide variety of household products. These small quantities vary from less then a pint of chemical drain opener to five-gallon containers of paint. Examples of HHW are listed below.

1.7.1 Oil-Based Paint

Leftover oil or solvent-based paint is a hazardous waste. Toxic, dangerous chemicals used in the production of oil-based paint can pose serious threats to human health and the environment if handled or disposed of improperly. Hazardous chemicals are found in each of the four basic components that make up paint:

- Resins: Resins are the film-forming component and may contain ethylene which causes headaches, dizziness, and loss of consciousness. Ethylene is also flammable and can be toxic to aquatic wildlife.

- Solvents: A solvent is an oil that keeps the resin liquified. Many solvents contain aromatic hydrocarbons such as mineral spirits. Mineral spirits can be a skin, eye, nose, throat, and lung irritant as well as be flammable.
  Note: Mineral spirits typically contain small amounts of toluene.

- Pigments: Pigments provide color. They may contain heavy metals such as cadmium, chromium, and lead. The lead content of household paint is limited to 0.5%. Cadmium irritates the respiratory tract while chromium is an eye and skin irritant. Lead is a suspected carcinogen of the lungs and kidneys and is flammable in the form of dust.

- Additives: Additives are thickeners and fungicides that may contain mercury compounds which can irritate the skin and mucous membranes.

If oil-based paint is thrown into the trash and ends up in a sanitary landfill, there is the potential for the hazardous chemical components to seep into the groundwater. Therefore, it is illegal to dispose of oil-based paint in the trash.

1.7.2 Latex Paint

Latex paint is a suspension of finely divided synthetic resins in water, commonly called water-based paint. It contains such resins as acrylics, vinyls, and epoxies among others. Many of these resins are combustible and contain skin or eye irritants.

1.7.3 Used Oil

Used oil is any oil that has been refined from crude oil and has been used. The term used oil also applies to any oil that is no longer useful to the original purchaser as a consequence of extended storage or contamination with non-hazardous impurities such as dirt and water.

In California, used oil is a hazardous waste. The hazards associated with used oil result from the additives used in its manufacture and from the heavy metal contaminants picked up from use in an internal combustion engine.

California's used oil laws prohibit the disposal of used oil by discharge to sewers, storm drains, surface waters or groundwaters, by incineration or burning as a fuel, or by deposit on land, unless otherwise authorized by law.

Used oil can be recycled. Two and one half quarts of lubricating oil is gained by re-refining one gallon of used oil.

1.7.4 Lead-Acid Batteries

Lead-acid batteries, as used in cars and boats, present a particular threat because of their size and chemical content. Each battery has a plastic outer shell that contains several inner shells. Each inner shell encloses lead and lead plates which are immersed in sulfuric acid. The average lead-acid battery contains 17.5 pounds of lead and 1.5 gallons of sulfuric acid.

Sulfuric acid "eats away" or dissolves materials and living tissue by chemical reaction. Symptoms of severe lead poisoning include coma, convulsions, seizures and even death. Even low levels of lead exposure can result in fatigue, impaired central nervous system functions and impaired hearing.

Nationwide, 70 percent of spent lead-acid batteries are recycled. Most of the recycled lead products are used to make new batteries.

1.7.5 Alkaline Batteries

In 1987 it was estimated that 10,000,000,000 alkaline batteries are produced or marketed each year in the United States. The average household alkaline battery contains 1200 milligrams of (mg) of mercury. The mercury from alkaline batteries disposed in landfills could potentially enter the environment that could produce serious adverse effects.

1.7.6 Aerosols

Aerosols cans contain a mixture of propellants and active ingredients such as pesticides or paint. Propellants are gases under normal conditions, but when placed under pressure, as in aerosol containers, they liquefy and occupy far less space. When the nozzle is pressed, the mixture is released as a fine spray (aerosol or foam (aerogel), sprays into the air and carries the active ingredients with it. Other consumer items sold in the form of aerosols or aerogels are perfumes, deodorants, hairspray, shaving cream, and whipped cream.

Hazards from aerosols include toxic materials, corrosive chemicals, aerosol-propelled particles that can enter the lungs and blood-stream. Many aerosols are also flammable and explosive.

Table 1-1 demonstrates the concerns and proper disposal methods for common household hazardous products

1.8 Summary and Conclusions

The City of La Habra along with the 450 other cities in the State of California have been required to prepare a SRRE and HHWE on or before July 1, 1990, in accordance with the California Integrated Waste Management Act of 1989. Kleinfelder, Inc., in contract with the City of La Habra has prepared this HHWE for the City in compliance with Title 14 CCR, Div. 7, Chap. 9, Art. 3, 6.1, 6.2, 7 and 8.

Table 1-1 TYPICAL HAZARDOUS HOUSEHOLD PRODUCTS

Product	Concern	Disposal
Household Cleaners		
Abrasive scoring powders	Corrosive	Hazardous waste facility
Aerosols	Flammable	Hazardous waste facility
Ammonia and Ammonia-based cleaners	Corrosive	Hazardous waste facility, or dilute small amounts
Chlorine bleach	Corrosive	Hazardous waste facility, or dilute small amounts
Drain openers	Corrosive	Hazardous waste facility
Glass cleaners	Irritant	Dilute small amounts and flush down toilet
Outdated Medicines	Hazardous to others in family	Dilute small amounts and flush down toilet
Oven cleaner	Corrosive	Hazardous waste facility
Shoe polish	Flammable	Hazardous waste facility
Silver polish	Flammable	Hazardous waste facility
Spot remover	Flammable	Hazardous waste facility
Toilet bowl cleaner	Corrosive	Hazardous waste facility
Upholstery and carpet cleaner	Flammable and/or corrosive	Hazardous waste facility
Personal Care Products		
Hair waving lotions	Poison	Dilute small amounts and flush down toilet
Medicated shampoos	Poison	Dilute small amounts and flush down toilet
Nail polish remover	Poison, flammable	Hazardous waste facility
Rubbing alcohol	Poison	Dilute small amounts and flush down toilet
Automotive Products		
Antifreeze	Poison	Hazardous waste facility
Brake and transmission fluid	Flammable	Hazardous waste facility
Car Batteries	Corrosive	Recycling center/repair
Diesel fuel	Flammable	Recycling center
Kerosine	Flammable	Recycling center
Gasoline	Flammable, poison	Hazardous waste facility
Waste oil	Flammable	Recycling center

Continued following page

Table 1-1 Continued from previous page

Product	Concern	Disposal
Paint Products		
Enamel, oil based, latex or water based paints	Flammable	Donate/Hazardous waste facility
Miscellaneous Products		
Batteries	Corrosive	
Photographic chemicals	Corrosive, poison	Hazardous waste facility Donate to photo shop
Pool acids and chlorine	Corrosive	Hazardous waste facility
Pesticides, Herbicides, and Fertilizers		
Including garden insecticides, ant and roach killers, weed killers, etc.	Poison: some are flammable	Hazardous waste facility County Department of Agriculture
Chemical fertilizers	Poison	Hazardous waste facility County Department of Agriculture
Houseplant insecticide	Poison	Hazardous waste facility

2 GOALS AND OBJECTIVES

Each City is required to state the specific goals and objectives that will be accomplished during the short-term and medium-term planning periods of the HHWE.

2.1 Overall City Goal

The overall goal of the City of La Habra is to develop a HHW recovery program that will ensure the proper collection and handling, recycling, treatment, and long-term disposal of HHW generated within the jurisdiction of the City, and to reduce the hazard potential of these wastes. This goal may be achieved by optimization of each of the management elements to provide the most cost-effective solution, while working within the boundaries of political, social, economic, and user constraints.

This program must specifically ensure the following:

- That the health, safety, and welfare of the general public are protected, and that the effects and impacts on the environment are limited
- That the program can be modified to accommodate changing economic, technological, demographic, and social conditions
- That the program can be implemented within the short and medium term planning periods
- That the program incorporates, where possible, state-of-the-art technology to improve the integrity of the program, and that the program, can be built into existing programs and facilities currently operating within the City
- That the program is efficient, and is technically, socially, politically and economically feasible, and is consistent with applicable local plans, policies, and ordinances
- That the program does not create or conflict with political or other institutional barriers

- That the implementation costs of the program within the short and medium-term planning periods are feasible to the City

- That the development of the program involves the participation of both the public and private sectors

- And that local, regional, state, national, and international end-users for the recovered materials are identified, to ensure the success of the plan

This program will encompass all aspects of waste recovery by attempting to achieve the following:

- Through operation of the HHW permanent facility, mobile HHW program, and the waste load-checking program divert the maximum amount of HHW from the waste stream by 1995.

- To the extent possible, recycle the following HHW materials recovered through the HHW permanent facility, mobile HHW program, and the waste load checking program: waste oil, solvent, paint and batteries.

- To the extent possible, reduce or eliminate the disposal of HHW transported to the Orange County Landfills by 1995.

- Increase efforts to ensure proper management and disposal of HHW to reduce potential hazards to the general public and the environment.

2.2 Short-Term Goals and Objectives (1991-1995)

Goal:

Provide a means for La Habra residents to safely dispose of HHW.

Objectives:

Investigate the feasibility of a pickup-at-the-door collection program for those residents who are unable to bring their HHW to the collection facility (e.g., elderly, disabled, and residents without cars).

Goal:

Increase the percentage of collected HHW that is recycled or reused.

Objectives:

Investigate the feasibility of a waste exchange program for useable products such as paints, cleaning products, and gardening products.

Continue to identify end markets for materials with recycling potential, especially high volume materials (e.g., latex paints).

Goal:

Decrease the amount of HHW generated in La Habra.

Objectives:

Develop public education programs to influence consumer behavior (encourage consumers to buy less-toxic products, buy smaller amounts, use materials up instead of discarding them and to donate unused portions to friends or community organizations)

Develop questionnaires to monitor the participation of La Habra residents in the City and County HHW programs

Goal:

Monitor and remain current on regulatory requirements and participate in improving HHW management methods.

Objectives:

Monitor state and federal legislation about HHW and attend seminars, workshops, and conferences

Encourage voluntary initiatives or legislation that would decrease the toxicity of household products sold in La Habra and place more responsibility on product manufacturers to pay disposal costs.

2.3 Medium-Term Goals and Objectives (1996-2000)

Goal:

Eliminate or significantly reduce disposal of HHW in Orange County's solid waste landfills.

Objectives:

Investigate the need to develop additional HHW facilities to adapt to the program's capacity needs and any changes in residential development patterns.

Investigate incentive mechanisms to encourage source reduction and increase participation rates in the collection program.

Continue the public/private coalition comprised of the County District Attorney's office and the Orange County Solid Waste Association for the purpose of monitoring HHW disposal practices.

2.4 Targeted Materials

Used motor oil and paints have been identified by the City of La Habra as primary targets for future diversion programs because of their wide spread use and large disposal volume. Household batteries are also a target because of the toxicity of the heavy metals they contain. These identified targets are based on the County's five years of experience with HHW collection and disposal programs.

3.1 Amount of HHW Generated

Based upon the waste generation study conducted by Orange County, it is estimated that approximately 310 tons per year of HHW are being generated by the residents in the City of La Habra. A per household estimate has previously been calculated (approximately 7.5 pounds per household per year) based on a study done in Marin County by researchers from the University of Arizona. (See Appendix A for reference.) Thus, using this estimate and California Department of Finance data on the number of households in Orange County (842,961 in January 1990), the amount generated for the county as a whole was estimated to be approximately 3,200 tons in 1990.

As the waste generation study performed by the County of Orange indicates, HHW makes up less than one percent of the solid waste stream. Of more importance in HHW management is reducing the amount of toxic and hazardous material, especially liquids, discarded at solid waste landfills, and increasing the rate of source reduction and recycling so that reliance on disposal at hazardous waste landfills is decreased.

3.2 Amount of HHW Diverted

Based upon the information released by the Orange County Hazardous Materials Program Office, approximately 10 homes from the City of La Habra participated in the County Collection Events during the 1988-1990 timeframe. Therefore, using the Marin County Study estimate of 7.5 pounds per household, approximately 75 pounds were diverted from 1988 through 1990.

4 EXISTING CONDITIONS DESCRIPTION

The Orange County Integrated Waste Management Department (IWMD) operates a Hazardous Material Control Program (HMCP) with the goal of preventing hazardous materials from being improperly disposed at the four county landfills. The HMCP comprises three components: materials regulation, landfill load-checking, and HHW collection stations. HMCP management requires that each component function in an integrated and coordinated manner. In addition, the landfill load-checking program and HHW collection stations are closely linked in order to maximize IWMD efforts to prevent the improper disposal of all hazardous materials at county landfills.

4.1 Description of Existing Programs

The regulations for proper disposal of HHW are difficult to enforce and enforcement resources are limited, therefore, government agencies are sponsoring programs to facilitate proper disposal of HHW. There are no City sponsored programs at this time, however, the City of La Habra is participating in the programs organized by the County of Orange as well as producing additional public education information on a quarterly basis for city residents explaining HHW and advertising the location of the Anaheim collection center described below. This section briefly describes the existing HHW collection program operating in the County.

The Orange County Fire Department has had an active HHW program since 1985. The program originated with a series of five collection events known as Toxic Roundups, one in each of the County's supervisory districts, between April 1985 and November 1986. A second series of eight collection events were held during 1988 and 1989. The amount of HHW diverted from landfills is contained in Section 3.

4.2 The 1985/86 Toxic Roundup Series

In order to accomplish one of the main goals of the County's hazardous materials program: to offer residents a safe and proper method to dispose of household hazardous waste, two series of one-day toxic collection events or "Toxic Roundups" were conducted in the last 5 years.

The 1985/86 series consisted of five toxic roundups, one in each supervisorial district. The pilot project was financed by the Waste Management Enterprise Fund and the County Sanitation Districts of Orange County. The events targeted households and were conducted between April 1985 and November of 1986.

The Hazardous Materials Program recognized that the major obstacle to the program would be funding, due to the program's costly, labor intensive character. The 1985/86 series also assisted in collecting data from Orange County residents as to what volumes and types of waste were in the community. The funding issue was addressed by the Orange County Waste Management Department and the Board of Supervisors in October 1987, granting the program a 12 cents per ton from the landfill tipping fee. Currently, the Hazardous Materials Program receives 25 cents per ton for program operations.

During the 1985/86 Toxic Roundup series, it was estimated that a large portion (45%) of the waste stream collected at the collection events was latex paint. The latex paint was put in drums and placed in a Class I landfill, at the cost of approximately $140.00 per drum. The number of 55 gallons drums landfilled during the series was 2,661, indicating approximately, 1,197 consisted of waste latex paint (45% of the drums collected). Costs based on this estimate totaled $167,200. With a total participation of 4,563 households during the series, the latex paint cost per household was $36.64. The toxics cost per household was $48.76, which is a total for the 1985/86 series of $85.40 per household.

4.3 The 1988/89 Toxic Roundup Series

The County's hazardous materials program recognized that an alternative method must be utilized regarding the disposal of latex paint. The extreme expense of landfilling latex paint was rapidly becoming cost prohibitive for the program.

A secondary treatment method was secured for the 1988/89 series and the program began to treat the latex paint collected by drying it at the County's landfills. Under this alternative treatment/disposal method, the costs associated with the disposal of latex paint significantly decreased from $36.64 per household to $2.75 per household.

During the 1988/89 Toxic Roundup series, the total participation increased from 4,563 household to 5,644 households. As the cost for latex paint disposal decreased, the disposal costs for toxics increased from $48.76 per household to $80.62 per household. Due to these off setting costs, the overall cost per household of $83.37 is only $2.02 less than the 1985/86 series total.

After the completion of the Toxic Roundup series the Hazardous Materials Program Office determined that the one-day collection events were neither a time nor cost effective manner by which to deal with HHW.

Out of the eight County round-ups in 1988-1989 the residents of La Habra utilized four, The Huntington Beach Round-up on 8/27/88, the Irvine Round-up on 10/1/88, the Mission Viejo Round-up on 2/25/89 and another Irvine Round-up on 12/2/89. These events are currently utilized by an average of 36 households per event (participation ranges from 15 to 60 per event). Participation for the FY 89-90 was 142 which equates to a participation rate of 0.4% (142 participants/36,648 City households). In total, throughout the county, over 19 tons of HHW have been collected from more than 5085 households throughout Orange County.

The following Table 4-1, describes the types and quantities of HHW diverted from disposal in Orange County solid waste landfills during 1989. The categories in Table 4-1 do not match CIWMB Form 303 precisely because the form was not available in 1989, and 1990 HHW diversion data are not yet available.

TABLE 4-1
HHW DIVERTED DURING 1989 COLLECTION

Waste Type	Disposal Method	Amount
1. Oil-based paint and thinners	Incineration	14,409 gallons
2. Flammables	Incineration	3,980 aerosol cans
3. Organic pesticides and solvents	Incineration	445 aerosol cans
4. Pool acids and photo chemicals	Neutralization	100 gallons
5. Drain, toilet and oven cleaners	Neutralization	441 cans
6. Antifreeze	Recycling	130 gallons
7. Gasoline	Recycling	100 gallons
8. Waste oil	Recycling	1,705 gallons
9. Car batteries	Recycling	4,105 pounds
10. Miscellaneous	Hazardous Waste Landfill	203 55-gallon drum labpacks
11. Latex paint	Landfilled as Solid	7,000 gallons

Source: Orange County Fire Department

Note: This does not include HHW collected by the City of Irvine. Latex paint from the 1988-89 County collections was dried at the landfill and then discarded as solid waste under an agreement with the Santa Ana Regional Water Quality Control Board. Latex paint is now recycled.

Table 4-2 denotes the number of households that participated at each of the County's Toxic Round-ups by event location.

TABLE 4-2
PARTICIPATION AT 1988-89 COLLECTION EVENTS

Date	Location	No. Households Participating
August 6, 1988	Anaheim	349
August 13, 1988	Anaheim	490
August 20, 1988	Huntington Beach	710
August 27, 1988	Huntington Beach	761
September 24, 1988	Stanton	236
October 1, 1988	Irvine	539
February 25, 1989	Mission Viejo	1,569
December 2, 1989	Irvine	990

Source: Orange County Fire Department

4.4 The Household Hazardous Materials Collection Centers (HHMCC)

In 1989 the County of Orange Board of Supervisors approved the establishment of 6 collection centers for the purpose of collecting household hazardous materials. One of the collection centers opened at the Anaheim Disposal facility in Anaheim in July 1990, and another collection center opened at the Rainbow Transfer/Recycling facility in Huntington Beach in February 1991. Both of these facilities experienced large amounts of difficulty. Development of the collection centers began in April 1989 and is continuing to move slowly forward though more slowly then anticipated at the onset.

4.4.1 Anaheim Regional HHMCC

The Anaheim Regional HHMCC is sited at Anaheim Disposal, Inc., a public solid waste and recycling facility located at 2780 East White Star Avenue in Anaheim. Siting of the Anaheim Regional HHMCC was based on factors which include:

- Public's familiarity with the location as a solid waste recycling, disposal and transfer facility (private enterprise).
- Close proximity to State Highway 91 and State Highway 57 which minimizes transportation risk on local streets.
- Site has established public accesss routes which allow for adequate ingress and egress.
- Site has been used for HHW one-day collection events (toxic Round-ups).

4.4.1.1 Physical Location

The site occupies the southwestern 2.6 acre corner of a contiguous group of properties of 11.5 acres bounded by Gretta Lane on the north, Blue Gum Street on the east, State Highway 91 on the west and La Palma Avenue on the south (reference the The Thomas Guide: Orange County Street Guide & Directory ed. 1990 map 12 grid B2).

The site is owned by Taomira Industries for their Anaheim Disposal, Inc. operations. Anaheim Disposal, Inc. (ADI) uses the site to conduct recycling/resource recovery activities, public dumping and solid waste transfer operations. ADI also stores, repairs and maintains a fleet of trucks at the site as well as conducting administrative duties related to their operations.

4.4.1.2 Site Information

The Anaheim Regional HHMCC is located within ADI's public recycling area adjacent to an employee parking area. The HHMCC and its related operations will be confined to the northwestern most portion of the contiguous properties. The HHMCC will be located 60 feet from the southwest property line which is also the closest property line to HHMCC activities.

The Anaheim Collection Center opened in July 1990. This Center opened later than anticipated for the following reasons:

1. The scope of the collection center project, as proposed, increased dramatically through the development phase. As with any other project of this nature, the problems, delays and concerns that have arisen could not have been foreseen.

   a) The approval processes documentation necessary at the state, county, and city level have been more extensive than originally expected.

   b) The estimated time frames for various aspects of the project from participating agencies, cities, etc. have also been more lengthy than anticipated.

2. Shortly before the scheduled implementation of the first collection center, a concern regarding liability and center staffing was voiced by the insurance agents of the privately owned transfer station. That concern required significant revisions to permit requests; operations plans; staffing guidelines; Request for Proposals and materials management contracts; and site usage agreements.

4.4.2 Huntington Beach Regional HHMCC

The Huntington Beach Regional HHMCC is sited at Rainbow Transfer/Recycling Co., Inc. ("Rainbow"), a public solid waste and recycling facility located at 17211 Nichols Street in Huntington Beach. Siting of the Huntington Beach Regional HHMCC was based on factors which include:

- Public's familiarity with the location as a solid waste recycling, disposal and transfer station facility (private enterprise).

- Site has established public access routes which allow for adequate ingress and egress.

- Site has been used for HHW one-day collection events (Toxic Round-ups).

4.4.2.1 Physical Location

The site occupies 4.73 acres bounded by Rainbow's transfer/recycling facility on the north, Nichols Street on the east, Southern Pacific Transfer Co. railroad track on the west and a lumber storage facility on the south The site is owned by Phil Hohnstein and operated as Rainbow Transfer/Recycling Co., Inc. ("Rainbow"), a solid waste transfer and recycling facility. Rainbow uses the site to park the trucks and other vehicles associated with their activities, and as an employee parking area.

4.4.2.2 Site Information

The Huntington Beach HHMCC is located within Rainbow's operations parking area (non public parking). The HHMCC and its related operations are confined to the southeastern portion of the property separated from the employee parking area by a six (6) foot concrete wall topped by razor wire. The HHMCC is located 75 feet in from the southern most property line which is also the closest property line to HHMCC activities.

The Huntington Beach HHMCC facility was scheduled to open in the Fall of 1990 but it also experienced the same delays as the Anaheim facility, along with some revisions to property boundaries. Therefore, the Rainbow Transfer/Recycling Co. purchased the parcel of land adjacent to theirs in order to site the HHW collection center at that location. The complete operations plan for the Huntington Beach HHMCC can be found in Appendix B.

Used motor oil, antifreeze, and car batteries are recycled as part of the County's program. Latex paint is recycled either as a fuel for cement kilns or into a reusable paint product. End users for the materials currently recycled are identified by the County's hazardous waste management contractor. The end users vary over time depending on the current market for the individual material.

4.5 Landfill Load Checking Programs

The IWMD is required by Chapter 3, Subchapter 15, Title 23 of the California Code of Regulations to check loads to prevent the illegal disposal of hazardous materials in solid waste landfills. A load checking program has been in place since 1985 at each of the county's four landfills. Fifteen landfill refuse inspectors perform spot checks of vehicles hauling solid waste to the landfill and inspect the loads for the presence of hazardous materials. Five landfill refuse inspectors will staff the landfill HHW collection stations. The hazardous waste discovered in hauler loads is legally discarded through a contract with a hazardous waste disposal company. Transportation and disposal costs are paid out of the County's Waste Enterprise Fund.

Haulers or individual residents discovered attempting to dispose of HHW illegally are given information about how to properly dispose of the waste. In addition, their name and license number are recorded and a vehicle "turn-away" log form is completed. If the same individual returns to the landfill and attempts illegal disposal, the case is referred to the District Attorney for investigation and persecution, as appropriate.

The types and amounts of HHW collected and diverted through the load check program at the landfills are shown in Table 4-3. The types and amounts of HHW collected and diverted at the permanent HHW facility in Anaheim during 1990 are shown in Table 4-4.

TABLE 4-3
HOUSEHOLD HAZARDOUS WASTE COLLECTED FROM LOAD CHECK PROGRAMS AT ORANGE COUNTY LANDFILLS DURING 1990

Waste Type	Amount
Flammable gas (propane, aerosol cans)	2,875 lbs
Flammable liquid (fuel, solvents)	3,276.25 gas
Flammable solids (car polish, sterno)	85 lbs
Nonflammable gas (oxygen)	351.25 lbs
Combustible liquid (paint oil)	1,755 gals
Oxidizers (bleach, peroxides)	264.87 gals
Organic liquid (benzene)	30 gals
Organic solids (Contaminated soil)	20 gals
Corrosive material (acids, oven cleaners)	2,162.50 gals
Poison B (pesticides, fertilizers)	41.75 gals
Hazardous waste solids	551 lbs
Hazardous waste liquids (unknowns, miscellaneous)	620.61 gals

Source: IWMD, County of Orange

TABLE 4 HOUSEHOLD HAZARDOUS WASTE COLLECTED AT ANAHEIM COLLECTION CENTER DURING 1990	
Waste Type	Amount
Solvent-based paint	95 gals
Water-based paint	225 (5-gal drums)
Flammable liquids	57 (5-gal drums)
Aerosol cans	89 cans
Pesticides	59 (5-gal drums)
Corrosives	51 (5-gas drums)
Oxidizers	21 (5-gal drums)
Waste Oil	384 gals
Car batteries	60 batteries
Asbestos	5 gals
Miscellaneous	10 gals
Source: Orange County Fire Department	

4.6 Amount of Household Hazardous Waste Discarded Illegally

Under current California regulations, all HHW discarded in solid waste landfills is done so illegally. In addition, some HHW is poured down household drains, into storm sewers, or onto the ground; but the amount involved is not easily quantified. The regulations prohibiting this disposal are not vigorously enforced because of the difficulty and expense of managing such dispersed generation sources, and because collection and disposal facilities of adequate capacity to serve the entire population on a year-round basis have not been available. HHW programs throughout California have instead focussed on public education to encourage source reduction and voluntary collection programs to encourage diversion from landfill disposal. Orange County is one of the local governments that has led the development of these programs in the state.

4.7 Future Status of Programs

Additional HHW collection facilities have been approved by the Orange County Board of Supervisors. The Fire Department's Household Hazardous Materials Collection Program will be transferred into the Orange County Integrated Waste Management Department on July 1, 1991.

5 ALTERNATIVE HOUSEHOLD HAZARDOUS WASTE PROGRAMS

5.1 Identification of Alternatives

HHW programs, as defined in AB 939, are made up of four components: collection, monitoring at solid waste facilities, recycling, and public education. This section of the HHW Element is an evaluation of future HHW alternative programs according to the criteria described in the state AB 939 guidelines. Each of the four program components is briefly described below.

5.2 Collection Programs

The State of California AB 939 guidelines include four different types of collection programs as part of HHW programs: periodic/temporary collection events; permanent drop-off collection facilities; mobile drop-off collection facilities; and door-to-door, fee-for-service, or curbside collection programs.

Permanent Collection Facilities: Collection operations at permanent sites involve providing a location where residents can drive in and operators can remove materials from the cars. To protect the public's health and safety, a collection facility would retain a schedule and only be open to the public under direct supervision by the site's operator. Waste materials are then segregated by waste type and packaged for recycling, treatment, or disposal at a licensed hazardous waste landfill. Licensed haulers are used to transport materials from the collection facility. An area of the facility is also set aside for identification of unknown wastes prior to disposal. Simple chemical tests (pH, for example) are used to help identify the unknowns. The City of La Habra may consider providing this service free to property-tax-paying citizens of the City, and at a nominal fee for other uses.

Mobile Collection Facilities: Mobile collection centers are another method of providing a convenient collection location for residents. Drop-boxes or other customized mobile facilities are stationed at various locations around the county on a predetermined schedule. The drop-boxes are properly labelled as to the particular wastes that it may collect. Licensed haulers transport the waste on a predetermined schedule for proper treatment and disposal. Site operations are conducted in a similar manner as for periodic collection events, though the

scale might be somewhat smaller depending on the anticipated participation of local residents and the number of days the facility remains in one place.

Periodic Events: Periodic collection events at a convenient collection location for residents would provide another method of HHW disposal. Drop boxes are provided by appointment at a location easily accessed by the community for a predetermined period of time, after which time licensed haulers transfer the waste to either a transfer station or a hazardous waste landfill.

Door-to-Door Collection Program: This program would involve a customized collection vehicle and a by-appointment collection service to assist those who cannot transport their own HHW to the collection event or permanent collection facility, such as disabled or elderly residents. This program could be operated by a county, city or private entity.

Curbside Collection Program: This program is similar to curbside collection of recyclable solid wastes such as newspaper and glass. Waste materials are left on the curb on a predetermined day of the month, collected at the curb, and transported to a sorting and packaging facility. Some presorting occurs at the curb to prevent adverse chemical reactions (fumes, explosions) associated with storing incompatible wastes next to each other. Some liability and safety concerns are involved in this type of program since wastes are left out in the open for a period of time where pets and children could be exposed to toxics and other safety hazards. Collection of used motor oil as part of a curbside recycling program could be a variation worth considering.

Fee-For-Service Program: This program would involve charging residents for some or all of the disposal cost for the HHW program. Questionnaire results from the 1985-86 HHW collections indicated that 73 percent of the participants were willing to pay a nominal fee (up to $5) to offset disposal costs. Charging a fee might discourage the participation of some residents and encourage improper disposal. A ban or fine on disposal of certain waste materials might have to be combined with a fee-for-service program to ensure participation. Targeted materials for this type of program might include those with especially high disposal costs or those where viable substitute products are available that consumers could be encouraged to purchase instead (e.g. charge for aerosol-can disposal, and encourage pump spray alternatives).

Retail Return Programs: A retail return program would involve having residents return certain HHW products to the retail outlets where they were purchased. This type of program has been used in the past for waste materials such as used motor oil and car batteries. Programs are now being instituted in other states for small household batteries (e.g., D-cell and hearing aid batteries). A retail return program may be implemented in conjunction with the Mobile Collection Program. The City would provide drop off boxes to the retail outlets where residents could return their hazardous waste. Licensed haulers would transport the waste to collection facilities. The retail outlet would pay to dispose of the contents of their drop off boxes.

5.3 Recycling Programs

Because the individual wastes included in the HHW category are so diverse, markets for recycled material can be difficult to develop. Volumes of material collected are often too small to make transportation and reprocessing feasible. High volume materials (latex paint and motor oil) and products made of valuable or especially hazardous materials (lead-acid batteries) can be the exceptions if both recycling firms and end users can be identified. Possible future programs include a program to facilitate the exchange of useable products (detergents/cleansers, paints, gardening products), especially those in unopened containers. Materials could be made available to individual residents through organization of periodic hazardous waste swap meets, or could be donated to schools, social service agencies, or charities.

5.4 Educational Programs

The success of all the above-described HHW collection programs depends on a sound public education program to reach as many people as possible. Public education is important in order to inform and educate the public regarding HHW handling, treatment, and disposal, as well as to provide them with information about HHW collection programs. Such a program is not usually considered a separate alternative to collection programs, but rather as an integral part.

Education programs can take a variety of forms, including school curriculum, presentations to civic groups, brochures, and mass media (TV, radio, newspapers). Education plays a crucial role in source reduction, which is the preferred method for dealing with HHWs -- especially those that can't be easily recycled. In addition to educating the public with respect to source

reduction and recycling it is vitally important that consumers be educated in the storage of their hazardous discards until they are properly picked up or delivered to a collection facility. Education can help change consumer habits by encouraging people to buy less toxic or nontoxic products, to buy smaller quantities, and to then use up what they buy rather than throwing it away. In addition, people could be made aware through educational program that solid waste collection and hazardous wastes separation are labor intensive and that therefore, it is more economically viable to separate hazardous waste at the source - (the residence) than to dispose of it at a hazardous waste landfill. Possible activities that could be included in a HHW educational program include:

- Curriculum development programs (primary, secondary, community college)
- Contests in schools or as part of public events
- Cable-TV programs
- Booths at public events
- Billboards (road-side, bus-side)
- Travelling display or kiosk for public buildings
- Mailing to residents/garbage can hangers
- Ads in newspaper
- Community forums/workshops
- Retail location displays
- Shopping bag/milk carton ads
- Youth group programs

5.5 Spotters at Landfills and Transfer Stations

Load checking programs involve visual inspection or surveillance with monitoring equipment to detect the presence of hazardous materials in the solid waste stream. Load checking can be done at the landfill, at transfer stations, and at residential/commercial collection points (garbage cans or dumpsters). Load checking programs implemented at collection points can involve tagging containers found to include hazardous waste and refusing to collect the waste. Instructions on what to do with the waste would be included on the tag.

6 EVALUATION CRITERIA

This section describes the criteria that will be used to evaluate various HHW programs for the City of La Habra. The Planning Guidelines and Procedures for Preparing and Revising Countywide Integrated Waste Management Plans, Section 18733.3, Chapter 9, Division 7, Title 14, California Code of Regulations, requires that certain criteria be used in evaluating alternatives for HHW programs. Each criteria has been assigned a scale of high, medium and low. A high score indicates positive conditions. A low score indicates fewer positive conditions.

6.1 Effectiveness in Reducing Targeted Materials

Effectiveness in Reducing Targeted Materials considers the effectiveness of an alternative in reducing the amount of a targeted HHW. The Effectiveness evaluates the estimated percentage of HHW in the total waste stream that the alternative reduces or diverts. For the purpose of this evaluation, the following criteria were used.

Low: Very little diversion is expected

Medium: A moderate amount of diversion is expected

High: A significant amount of diversion is expected

6.2 Limited Shift in Waste Type Generation

Limited Shift in Waste Type Generation evaluates the consequences of implementing the alternative such as shifting solid waste generation from one type of solid waste to another.

Low: The alternative would negatively shift HHW production to the generation of non-recyclable, unmarketable, or uncountable materials.

Medium: The alternative would result in the creation of little non-recyclable, unmarketable, or uncountable materials wastes.

High: The alternative would prevent the creation of non-recyclable, unmarketable, or uncountable materials, or would have a positive shift in waste production to the generation of recyclable or compostable wastes or in producing new markets, or would not create negative shifts in HHW generation.

6.3 Absence of Hazard

Absence of Hazard evaluates the hazards that could be created by implementing the alternative. Hazards could include health risks, injury, fire, or public nuisances.

Low: Potential hazards are not completely understood, or the alternative increases the potential hazards.

Medium: Potential hazards are known and controllable. Some impacts remain.

High: There are few or no potential hazards or unmitigated impacts.

6.4 Flexibility

Flexibility considers the alternative's ability to accommodate changing technological, economic, demographic, seasonal, and social conditions. HHW vary in quantity and quality as changes occur in the standard of living.

Low: The alternative has a limited ability to respond to changing conditions. Limitations may include inflexible or unpredictable markets for diverted materials, or operational limitations.

Medium: The alternative is anticipated to demonstrate a moderate ability to respond to changing conditions. Significant changes in the program may be required.

High: The alternative is anticipated to be readily adaptable to changing conditions. No significant changes in the program are necessary.

6.5 Facility Needs

Facility Needs considers the need for expanding existing facilities or building new facilities to support the implementation of the alternative.

Low: New facilities must be developed to accommodate implementation of the alternative.

Medium: Existing facilities must be expanded or altered to accommodate implementation of the alternative.

High: The alternative can be easily integrated into existing facilities.

6.6 Consistency with Local Policies

Consistency with Local Policies evaluates the alternative's compatibility with existing local plans, policies, and ordinances.

Low: The alternative would require major changes to existing local plans, policies, or ordinances for implementation.

Medium: The alternative would require minor changes to existing local plans, policies, or ordinances for implementation.

High: There are no existing local plans, policies, or ordinances that would impede the implementation of the alternative.

6.7 Absence of Institutional Barriers

Absence of Institutional Barriers evaluates the extent to which institutional barriers, such as long-term franchise agreements, other contracts, or permit requirements may impact the implementation of the alternative.

Low: The alternative is affected by existing institutional barriers which are not under the control of the jurisdiction.

Medium: The alternative is affected by existing institutional barriers over which the jurisdiction maintains some control.

High: There are no known existing institutional barriers to the alternative.

6.8 Cost Rating

Cost Rating evaluates the overall estimated cost of the alternative, including capital costs and operating costs, over the lifetime of the alternative. This may also be presented by a range of costs.

Low: The cost to implement the alternative is high compared to other alternatives being considered (i.e. greater than $200,000).

Medium: The cost to implement the alternative is considered mid-range compared to other alternatives (i.e. $50,000 - $200,000).

High: The cost to implement the alternative is low compared to other alternatives (i.e. less than $50,000)

6.9 Ease of Implementation

Ease of Implementation evaluates the extent to which the alternative can be implemented in the short-term or medium-term planning periods.

Low: Implementation of the alternative could not be completed until after 2000.

Medium: Implementation of the alternative is anticipated to be completed by 2000.

High: Implementation of the alternative is anticipated to be completed by 1995.

6.10 End Uses

End Uses measure the marketability of the diverted materials.

Low:	End uses are currently non-existent or unreliable, though the potential for the development of long-term or medium-term markets may exist.
Medium:	End uses exist, but are subject to moderate fluctuations. The potential for the development of short-term markets may exist.
High:	Existing end uses are relatively stable.

7 EVALUATION OF HHW PROGRAMS/ALTERNATIVES

AB 939 regulations require consideration of certain HHW program alternatives, including: HHW collection alternatives; HHW monitoring alternatives; HHW recycling programs; and public education and information programs. This section describes and evaluates each of the alternatives as required in the regulations. These alternatives are presented with the understanding that the current Orange County HHW program actively uses several of these alternatives.

7.1 Collection Alternatives

7.1.1 Transfer Station - Permanent Sites

Material Recovery Facilities (MRF) stations provide facilities to segregate waste streams into recyclables, compostable materials, HHW, other special wastes and residual wastes suitable for landfills. All waste collected from households in the jurisdiction is sorted at the MRF station. Therefore, it is expected that a significant amount of HHW would be diverted from the total waste stream. The MRF and transfer station concept removes HHW from the waste stream for appropriate disposal and keeps it from entering the landfill. The MRF station could also serve as a HHW drop-off site for the convenience of County residents. However, since the transfer station rather than the resident, removes HHW from the waste collected, the resident is not provided with incentive to reduce the amount of HHW generated.

TABLE 7-1 HOUSEHOLD HAZARDOUS WASTE PROGRAM EVALUATION Program: Transfer Station - Permanent Sites			
Criteria	High	Medium	Low
Effectiveness in Reducing Targeted Materials	X		
Limited Shift in Waste-Type Generation			X
Absence of Hazard			X
Flexibility	X		
Facility Needs			X
Consistency with Local Policies		X	
Absence of Institutional Barriers		X	
Cost Rating		X	
Ease of Implementation			X
End Uses		X	

7.1.2 Collection Centers - Permanent/Mobile Sites

Permanent collection centers are designed to accept only HHW and serve as a drop-off center for residents. Specifically equipped storage structures/trailers provide a safe storage area where wastes can be segregated and lab-packed. The centers are staffed, either part-time or full-time, by technicians trained to identify general HHW types, properly lab-pack, and store hazardous materials for later collection by a licensed hauler.

A Mobile Collection Center consists of a trailer equipped to properly receive and "package" HHW's, and is manned by properly trained technicians. It is moved from one location to another among permitted sites on a regularly scheduled basis.

Mobile Collection Centers are a viable alternative while permanent sites are being established.

Siting of Collection Centers, permanent or mobile, requires extensive support from community planning groups, civic groups, town councils and other organizations involved in the planning and approval process.

TABLE 7-2
HOUSEHOLD HAZARDOUS WASTE PROGRAM EVALUATION
Program: Collection Centers Permanent/Mobile

Criteria	High	Medium	Low
Effectiveness in Reducing Targeted Materials	X		
Limited Shift in Waste-Type Generation			X
Absence of Hazard		X	
Flexibility		X	
Facility Needs			X
Consistency with Local Policies		X	
Absence of Institutional Barriers		X	
Cost Rating		X	
Ease of Implementation			X
End Uses		X	

7.1.3 Collection Events

7.1.3.1 Community Collection Events

A temporary collection center is set up at various locations on specific days. Residents are encouraged to bring their unused or accumulated HHWs to the center on the collection day (usually a Saturday). The center is staffed with trained personnel who collect, sort, and pack the HHW in 55 gallon drums. The wastes are transported by a licensed hauler to a Treatment, Storage and Disposal (TSD) facility. Depending on the type of waste it may be recycled, treated to neutralize or reduce its toxicity or incinerated. Community collection events held at schools and public facilities are widely advertised and are an effective means of raising public awareness of the proper disposal of HHW and of collecting these wastes periodically in the community.

Costs can be reduced by use of donated publicity, technical assistance, and materials; and by disposal discounts, particularly given for recyclables such as waste oil and car batteries, by hazardous materials management companies. In addition, county and city staff can be used for site preparation and to survey and direct participants.

TABLE 7-3 HOUSEHOLD HAZARDOUS WASTE PROGRAM EVALUATION Program: Community Collection Events			
Criteria	High	Medium	Low
Effectiveness in Reducing Targeted Materials		X	
Limited Shift in Waste-Type Generation			X
Absence of Hazard		X	
Flexibility		X	
Facility Needs	X		
Consistency with Local Policies	X		
Absence of Institutional Barriers	X		
Cost Rating			X
Ease of Implementation			X
End Uses		X	

7.1.3.2 Door-to-Door Collection Programs

Door-to-Door collection would involve prior appointments, a smaller number of residents, and direct exchange of wastes from the resident to the collection staff. Therefore, door-to-door is a somewhat lower cost and less hazardous method than curbside collections, which would involve collection from every household and temporary storage of wastes at the curb. Door-To-Door, however, does not serve the needs of the entire community, and must therefore be instituted in conjunction with another program, such as curbside collection.

TABLE 7-4 HOUSEHOLD HAZARDOUS WASTE PROGRAM EVALUATION Program: Door to Door Collection Program			
Criteria	High	Medium	Low
Effectiveness in Reducing Targeted Materials		X	
Limited Shift in Waste-Type Generation			X
Absence of Hazard			X
Flexibility	X		
Facility Needs			X
Consistency with Local Policies	X		
Absence of Institutional Barriers	X		
Cost Rating		X	
Ease of Implementation	X		
End Uses		X	

7.1.3.3 Fee-For-Service Collection Programs

Fee-For-Service collection would probably decrease the rate of voluntary participation, but may be appropriate for wastes with especially high disposal costs. In addition, residents may be willing to pay a nominal fee, up to about $5 per visit to the collection facility, to offset disposal costs. Fees on either a per unit basis or a per visit basis would necessitate an accounting system and associated auditing requirements. If the Fee-For-Service program is privately run under contract with the county, a franchise agreement might be necessary. Because Fee-For-Service requires that consumers pay for their hazardous discards, Fee-For-Service would potentially result in a positive shift of HHW production to non-toxic or less toxic products and recyclable products. Consumers would make this shift to minimize HHW disposal costs.

TABLE 7-5 HOUSEHOLD HAZARDOUS WASTE PROGRAM EVALUATION Program: Fee for Service Collection Program			
Criteria	High	Medium	Low
Effectiveness in Reducing Targeted Materials		X	
Limited Shift in Waste-Type Generation			X
Absence of Hazard			X
Flexibility	X		
Facility Needs			X
Consistency with Local Policies	X		
Absence of Institutional Barriers	X		
Cost Rating	X		
Ease of Implementation		X	
End Uses		X	

7.3.1.4 Curbside Collection

Curbside collection of HHW poses a potential health threat to the public from spills and/or children or pets coming into contact with the waste before pickup. While this collection alternative will continue to be explored for used oil and other selected HHW, it will not be incorporated in the Orange County HHW program at this time.

TABLE 7-6
HOUSEHOLD HAZARDOUS WASTE PROGRAM EVALUATION
Program: Curbside Collection

Criteria	High	Medium	Low
Effectiveness in Reducing Targeted Materials		X	
Limited Shift in Waste-Type Generation			X
Absence of Hazard			X
Flexibility	X		
Facility Needs		X	
Consistency with Local Policies	X		
Absence of Institutional Barriers	X		
Cost Rating		X	
Ease of Implementation		X	
End Uses		X	

7.2.1 Spotters at Landfills and Transfer Stations (Load Check)

Federal and State regulations require that municipal landfills and transfer stations implement a Hazardous Waste Exclusion Program (CFR 40 Parts 257 and 258; CCR Title 23 Section 2523). Orange County's program, to be implemented in 1991, will utilize spotters and random load checking at County landfills and transfer stations to identify hazardous materials, including HHW, before disposal in the landfill.

It is expected that the load-check program will:

- Encourage the proper disposal of hazardous, designated, and other prohibited wastes;
- Reduce the quantity of prohibited wastes entering the solid-waste stream;
- Provide for the proper management of hazardous materials delivered to all four landfills in Orange County;
- Identify generators who put hazardous wastes in the solid waste stream; and
- Provide for effective enforcement against non-complying hazardous waste generators.

The basic elements of the load check program include: public education; identification of permissible and non-permissible wastes; site security; training of collection and hauler personnel; cooperation from customers; consistent site (i.e. landfill, transfer station, etc.) surveillance; and appropriate on-site handling, storing and disposing of hazardous wastes found in the solid-waste stream.

TABLE 7-7

HOUSEHOLD HAZARDOUS WASTE PROGRAM EVALUATION

Program: Spotters at Landfills and Transfer Stations

Criteria	High	Medium	Low
Effectiveness in Reducing Targeted Materials	X		
Limited Shift in Waste-Type Generation			X
Absence of Hazard		X	
Flexibility	X		
Facility Needs	X		
Consistency with Local Policies	X		
Absence of Institutional Barriers	X		
Cost Rating	X		
Ease of Implementation	X		
End Uses		X	

7.3 Recycling

A recycling program for HHW targets materials that can be readily recycled which can reduce the high costs of disposal at a permitted hazardous waste facility. Many communities have integrated recycling programs into their existing collection events, drop-off centers, or door-to-door pickup programs. The recycling alternative considered for the City targets waste oil, paints, and batteries. By, recycling HHW, the City can help divert these materials from disposal and preserve resources.

TABLE 7-8 HOUSEHOLD HAZARDOUS WASTE PROGRAM EVALUATION Program: Recycling			
Criteria	High	Medium	Low
Effectiveness in Reducing Targeted Materials		X	
Limited Shift in Waste-Type Generation			X
Absence of Hazard			X
Flexibility	X		
Facility Needs			X
Consistency with Local Policies	X		
Absence of Institutional Barriers	X		
Cost Rating		X	
Ease of Implementation		X	
End Uses	X		

7.4 Public Education and Information

Education and public information are important elements of HHW programs. Successful programs require ongoing efforts to inform residents of the hazards of some household materials and the proper avenues available for its disposal. An education program should encourage the use of less toxic products, buying household hazardous materials only in quantities that will be used, proper storage, and proper disposal of HHW. An effective program will inform the community about the available recycling and disposal options, in addition to educating the public about the dangers of HHW and nonhazardous alternatives.

TABLE 7-9
HOUSEHOLD HAZARDOUS WASTE PROGRAM EVALUATION
Program: Public Education

Criteria	High	Medium	Low
Effectiveness in Reducing Targeted Materials	X		
Limited Shift in Waste-Type Generation	X		
Absence of Hazard	X		
Flexibility	X		
Facility Needs	X		
Consistency with Local Policies	X		
Absence of Institutional Barriers	X		
Cost Rating	X		
Ease of Implementation	X		
End Uses	N/A		

The following table summarizes the results of the recycling program evaluations:

TABLE 8-1
SUMMARY OF PROGRAM EVALUATIONS

Program	Ranking
Transfer Station - Permanent Sites	1
Spotters at Landfills	2
Public Education	3
Recycling	4
Door to Door Collection	5
Curbside Collection	6
Fee for Service Collection	7
Collection Centers Permanent/Mobile	8
Community Collection Events	9

8.1 Regional Collection Centers

The City of La Habra supports and will participate in the County's HHW program for the following reasons:

- Greater convenience for City residents than periodic events
- Greater control over safety and environmental protection than at periodic events or mobile facilities
- Less expensive (staff, equipment, liability insurance) than large-scale curbside or door-to-door collections
- Greater incentive to participate than fee-for-service programs

County's Role Orange County has selected permanent HHW collection facilities as the most appropriate method for managing this waste category. Four to six permanent collection facilities were approved by the Board of Supervisors in 1989: one at each of the two landfills that take self-haul solid waste from county residents (Prima Deshecha and Olinda-Alpha); one each at three transfer stations/recycling centers in Anaheim, Huntington Beach and Stanton; and a sixth at a yet to be decided on location, possibly in Irvine. As mentioned earlier, the Anaheim facility opened in July 1990. The Huntington Beach facility opened in February 1991. The need for the Stanton facility will be reassessed based on participation at the Huntington Beach and Anaheim facilities. The HHW facilities at the Prima Deshecha and Olinda-Alpha landfills will probably be open in the spring of 1991. The Irvine facility may be postponed until 1992, pending approval of an appropriate site.

The initial phase of Orange County's permanent collection facility program has been well received by county residents, as indicated by the dramatic increase in participation during the first month of operation at the Anaheim facility.

City's Role The City will monitor participation of City households. If participation rates are low, the City will intensify efforts to increase awareness and participation through increased public education programs.
Monitoring, recycling, and public education will also be included in the county's program which the city of La Habra plans to participate in. Beginning in early to mid-1991, the hauler of loads discovered to contain more than 5 gallons or 50 pounds of hazardous waste, as part of the county's load checking program, will be required to manifest the hazardous waste and have it removed by a licensed hazardous waste disposal firm. (Door-to-door and fee-for-service collection programs will be investigated further for possible implementation at a later date).

8.2 Cooperative and Multi-Jurisdictional Household Hazardous Waste Program

This County-wide program is based on multi-jurisdictional implementation efforts. It will continue to be administered by County of Orange Integrated Waste Management Department.

The private sector is also involved since several of the permanent facilities are or will be located on privately-owned recycling centers (except the facilities planned for county-owned landfills).

County staff will also continue to work with other public-sector HHW managers, private management firms, and product manufactures to develop recycling markets for household wastes in Southern California. The primary target of this cooperative market development effort will be latex paint.

9 PROGRAM IMPLEMENTATION

9.1 Responsible Agency

The agencies responsible for implementing the City of La Habra's HHW program is currently the Planning Department.

9.2 Tasks Necessary to Implement the Program

The tasks necessary to implement the selected program are displayed on Table 9-1.

9.3 Short and Medium-Term Implementation Schedule

The schedule on Table 9-1 also shows when each of the implementation tasks will be implemented.

PROGRAM/TASK	RESPONSIBLE AGENCY *	SHORT TERM					MEDIUM				
		1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
COLLECTION											
Continue operation of Anaheim and Huntington Beach facilities	County Fire Dept. /IWMD										
Complete permit/approval process for Prima Deshecha and Olinda-Alpha collection centers	County Fire Dept.										
Review feasibility of Stanton facility	IWMD/County Fire Dept.										
Construct and begin operation for next 3 to 4 facilities	IWMD										
Identify location for Irvine facility	IWMD/City of Irvine										
Complete permit/approval process for Irvine facility	IWMD/City of Irvine										
Construct and begin operation of Irvine facility	IWMD										
Investigate door-to-door program for shut-ins	County Fire Dept./IWMD										
Plan door-to-door program	IWMD										
Implement door-to-door program	IWMD										
Investigate incentive mechanisms (bans, deposits, fines)	IWMD										
Investigate need for additional or alternative permanent facilities	IWMD										
Implement additional or alternative permanent facilities	IWMD										
RECYCLING											
Investigate feasibility of waste exchange	IWMD										
Implement waste exchange	IWMD										
Continue existing recycling program (oil, antifreeze, latex paint, car batteries)	County Fire Dept./IWMD										
Identify recyclers/end-users for waste paint (reuseable as paint product)	County Fire Dept./IWMD										
Implement waste paint recycling program	IWMD										

LEGEND

- ▲ Decision Point or Reporting Deadline
- ▬ Planned Activity
- - - Possible Activity

* Fire Dept. Program expected to be merged into IWMD during 1991.

FIGURE 1
HOUSEHOLD HAZARDOUS WASTE
SHORT- AND MEDIUM-TERM IMPLEMENTATION SCHEDULE

WF/FIGURES/LAO31674.AB/FIG1

PROGRAM/TASK	RESPONSIBLE AGENCY	SHORT TERM					MEDIUM TERM				
		1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
MONITORING											
Compile and analyze data	IWMD										
Report collection statistics to Board of Supervisors and other jurisdictions	IWMD	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Continue implementation of landfill load-check program	IWMD										
Investigate feasibility of load check at transfer station and residential pickups	IWMD										
Implement load check at transfer station/residential pickups	IWMD										
Continue use of participant questionnaire at collection facilities	County Fire Dept./IWMD										
Implement curbside HHW characterization to establish baseline generation rate	IWMD										
Repeat curbside HHW characterization	IWMD										
PUBLIC EDUCATION											
Distribute brochure/portfolio (* = revision)	County Fire Dept./IWMD	*			*		*		*		*
Distribute press releases (as necessary)	County Fire Dept./IWMD										
Prepare modular display	IWMD										
Give presentations to local groups/schools	County Fire Dept./IWMD										
Investigate feasibility of HHW curriculum for local schools	IWMD/Cities	▲									
Prepare handouts for schools	IWMD/Cities										
Implement HHW curriculum program	IWMD/Cities										
Develop cable television program	County Fire Dept./IWMD										
Prepare and distribute mailings	County Fire Dept./IWMD/Cities										
Sponsor awareness programs (retail outlets/community events)	County Fire Dept./IWMD/Cities										
Distribute and present videos	County Fire Dept./IWMD										
Continue telephone hot line	County Fire Dept./IWMD										

LEGEND

▲ Decision Point or Reporting Deadline

Planned Activity

P[redacted]ctivity

FIGURE 1 (Continued)
HOUSEHOLD HAZARDOUS WASTE
SHORT- AND MEDIUM-T[redacted]PLEMENTATION SCHEDULE

[redacted]

WE/FIGURES1 AC01674 AB/CIG1

10 MONITORING AND EVALUATION

HHW monitoring will identify hazardous materials in the solid waste stream and will reduce the amount of HHW being landfilled. It should be noted that monitoring catches only the HHW that enters the solid waste stream, not that which is disposed in other ways.

10.1 Monitoring Methods

The City will use a questionnaire to collect information about residents who use the collection facilities, including number of participants, city of residence, volume of waste discarded, awareness of associated public education and recycling programs, and changes in consumer behavior that contribute to source reduction of HHW. In addition, statistics on the types and amounts of HHW collected and managed as part of the HHW program will be compiled and reported to the County Integrated Waste Management staff and other jurisdictions.

The city will also investigate the feasibility of conducting a curbside waste analysis study to document the types and amount of HHW being generated in La Habra. Follow-up sampling could be done periodically thereafter to monitor the success of source reduction programs.

In addition, questionnaires mailed to city residents or distributed during solid waste collections (as door or garbage can hangers) can be used to gather information about residents who have not participated in the collection events or visited the permanent collection sites because they are unaware of the program, do not choose to participate, or are successful in avoiding the generation of HHW.

10.2 Criteria for Measuring Effectiveness

Criteria that will be used to measure effectiveness of the HHW program include:

- Percent resident participation at the mobile and permanent collection facilities
- Percentage of HHW that is diverted from the solid waste stream entering the landfill or other disposal facilities due to the administration of the program.
- Percentage of collected HHW that is recycled (types and volumes)

- Involvement of private commercial sector in providing HHW separation, collection, management, or disposal services
- Assessing public attitude of the administered program by questionnaires
- Per household cost of collection and disposal programs

10.3 Responsible Agencies

The City's Planning Department will be responsible for monitoring the program's effectiveness and for implementing any evaluation programs or contingency measures to remedy any shortfall in achieving stated objectives.

10.4 Contingency Measures to Implement if shortfall

In case of a significant shortfall in achieving program goals and objectives, the following measures will be considered:

- Incentives (fines or deposit systems, for example) to encourage participation
- Surcharges on retail products to fund more aggressive collection and management programs
- Bans on the sale of certain retail products
- City-sponsored collection events
- Evaluation of additional alternatives along with a re-evaluation of the alternatives evaluated previously in this element.

11 EDUCATION AND PUBLIC INFORMATION

The success of the HHW collection programs depends on a sound public education program to reach as many people as possible. Public education informs and educates the public regarding HHW handling, treatment, and disposal, as well as provides information on HHW collection programs. An effective public information and education program is essential to ensure safe handling and disposal practices for HHW.

11.1 Existing Household Hazardous Waste Education and Public Information Conditions

Since the program's inception in 1985 the scope of the County's hazardous materials program has greatly increased. Several tools have been developed and utilized to address the continually widening scope of activities. Orange County Fire Department's existing HHW public education program includes:

- Presently, the 24 hour "Toxic Hotline" number (714-744-0516) provides the public access to information on Toxic Roundups, the permanent and proposed collection centers and general information about household toxics.

- The full scale implementation of the County's Community Awareness Program is expected to heighten the number of inquires made to the office, because of the inclusion of the hotline number on all distributed materials. In order to respond to the public in a timely manner, the program implemented a full service automated phone system (April 1, 1990) to respond to the increased number of calls that are received from the general public.

- A portfolio package containing a brochure, a newsletter, and 6 hazardous material facts sheets which will be distributed in a variety of ways.

- Additional specialty items included in the Community Awareness Program (modular display unit, magnets, school program handouts, etc.) are in various stages of development and will be completed upon receipt of a funding source.

- The Hazardous Materials Program staff have developed an inhouse speakers bureau. All members of the staff speak to various community, civic, school, and professional groups regarding household hazardous materials.

- In addition to the speakers bureau, staff members participate in panel discussions and seminars through educational institutions, community groups, professional associations and government affiliations.

- The 16 minute "Healthy Home" video, developed by the staff, in cooperation with General Telephone of California, is shown at the speaking engagements previously mentioned.

- An 8-minute video outlining the procedures for staging a toxic roundup was produced by the program. The video is shown to many civic groups and is loaned to cities or counties for their use.

- Orange County Fire Department has also cooperated in the development of a training program at Rancho Santiago College. This program, called the Household Hazardous Materials Site Academy, is a 40-hour hands-on course for County staff and other interested parties. The course covers emergency response equipment, toxicology and chemistry, protective clothing, safety procedures, hazardous materials categorization, and relevant laws and regulations.

11.2 Selected Household Hazardous Waste Education and Public Information Programs

The success of all the previously-described HHW collection programs, (Section 9), depends on a sound public education program to reach as many people as possible. Public education is important in order to inform and educate the public regarding HHW handling, treatment, and disposal, as well as to provide them with information about HHW collection programs. Such a program is not usually considered a separate alternative to collection programs, but rather as an integral part. A comprehensive public outreach program is included within the County's HHW collection program which uses a wide range of media to educate households about the hazardous materials they may be using in their homes, safe substitute products and proper and improper disposal methods. Public outreach will be accomplished through flyers distributed to households (particularly to advertise a collection program) or distributed at retail stores selling hazardous products, stickers applied to trash cans, newspaper articles, radio and television shows, public service announcements, school curriculum, and public library materials.

1.3 Community Education Activities

- Increase people's awareness of the risks of the household hazardous materials used in the home, and proper disposal methods by providing presentations to community groups; printing and distributing information to individuals, organizations, institutions, and businesses; generating public service announcements and news releases; providing informative courses in school curricula; and providing training to refuse haulers/workers.

- Supporting HHW community collection events; mobile, temporary and permanent collection center siting efforts; and recycling programs.

- Advocate use of safer substitute products in households.

- Provide educational presentations to community groups at senior centers, service clubs, parenting groups, churches, consumer groups, planning organizations and city/town councils.

- Develop printed and audio-visual materials to be used in presentations.

- Distribute HHW brochures and other information to more than 9,000 retail, public service and government locations.

- Develop curriculum materials for the 4th through 6th, 7th through 9th grades, high schools and community colleges. Once the curriculum is complete and has been field tested. Teacher training workshops will be conducted city-wide to introduce the concepts to the teachers and train them on use of materials. Program policy is to encourage all school districts to adopt this curricula.

- Provide training materials to refuse haulers/collectors aimed at preventing injuries caused by toxic wastes in municipal trash. Refuse workers will in turn enhance community awareness through direct contact, flyers, and trash-can stickers.

- Initiate Community Collection Event promotion activities that include developing and adopting a logo mascot, recruiting community support for each event, media outreach, flyer distribution, and presentations to neighborhood groups.

- Increase people's awareness to the methods of source reduction that can be applied to product design, manufacture, sale, purchase, and use, so as to reduce the quantity and toxicity of HHW generated when the product reaches the end of its useful life. Source reduction may occur through the design, manufacture, and packaging of products with a minimum volume of material, a longer useful life, and minimum toxic content. It involves considering the ultimate destiny of products when making decisions on how products are made, and which products or materials are used. The control of these types of source reduction activities can be accomplished mostly at state and federal levels. However, source reduction may also be practiced at the household or corporate levels through selective buying patterns, and reuse of products and materials. These types of activities can more easily be implemented and monitoring at a local government level.

  Currently, there is no widely applied concept of source reduction, thus it is difficult to estimate the actual impact of source reduction programs on the HHW stream. However, the benefits of source reduction are conceptually clear: natural resources are conserved, less energy is generally used during product manufacture, and air, water, and land pollution are reduced. Table 11.1 demonstrates common household practices and non hazardous products to use as an alternative to some of the household hazardous materials that have been discussed.

- Continue to use public education programs to influence consumer behavior (encourage consumers to buy less toxic products, buy smaller amounts, and

- Continue to use public education programs to influence (encourage consumers to buy less toxic products, buy smaller amounts, and to use materials up instead of discarding them). Identify public schools, civic organizations, and neighborhood groups in the unincorporated areas as targets for public education efforts during 1992.

TABLE 11-1 ALTERNATIVE PRODUCTS FOR HOUSEHOLD HAZARDOUS WASTES		
Product	**Disposal**	**Alternative**
Household Cleaners		
Drain Openers	Hazardous Waste Facility	Pour boiling water down drain several times per week as a preventive. Unclog drains with a metal snake or plunger.
Oven Cleaners	Hazardous Waste Facility	Keep your oven clean as you use it. Ovens can be cleaned with baking soda or sprinkle salt on stains when warm and scrub.
Toilet Bowl Cleaners	Hazardous Waste Facility	A general household cleaner or baking soda can be used. Clean toilets often and you will not need strong chemicals.
Floor and Furniture Polishes	Hazardous Waste Facility	Light, soapy water to clean and a soft cloth to shine.
Ammonia and Ammonia-Based Cleaners	Hazardous Waste Facility	Vinegar with salt and water is a good cleaner. Dissolved baking soda does well in the bathroom and for cleaning coffee pots, chrome, copper, and tile.
Glass Cleaners	Dilute Small Amounts	Warm water and vinegar in an 8-to-1 solution makes a good window cleaner.
Chlorine Bleach	Hazardous Waste Facility or Dilute Small Amounts	Never mix with ammonia products - deadly chlorine gas results. Baking soda and water is a safer cleaner than diluted bleach.
Spot Removers/Dry-Cleaning Fluids	Hazardous Waste Facility	Do not use unless absolutely necessary, or use professional dry cleaners for stubborn stains.
Disinfectants	Hazardous Waste Facility	None
Rug and Upholstery Cleaners	Hazardous Waste Facility	Dry cornstarch sprinkled on rug and vacuumed may be effective, or use soap-based non-aerosol rug shampoos. Wear gloves and use ventilation.
Air Fresheners	Hazardous Waste Facility	Open windows to air home. Use baking soda in refrigerator as deodorizer, or cinnamon and cloves in boiling water. Use hot vinegar for fish odors.
Aerosols	Hazardous Waste Facility	Use non-aerosol products when possible.

TABLE 11-1 ALTERNATIVE PRODUCT[redacted]HOUSEHOLD HAZARDOUS WASTES

Product	Disposal	Alternative
Automotive Products		
Waste Oil	Recycle or Hazardous Waste Facility	None
Antifreeze	Recycle or Hazardous Waste Facility	None
Brake and Transmission Fluid	Recycle with Waste Oil or Hazardous Waste Facility	None
Gasoline	Use Up or Hazardous Waste Facility	None
Diesel Fuel	Recycle, Use Up, or Hazardous Waste Facility	None
Car Batteries	Recycle, Repair, or Hazardous Waste Facility	None
Paint Products		
Paints, Enamel or Oil-Based	Hazardous Waste Facility	Use latex or water-based paints if possible. Unusable paints should go to a Household Hazardous Collection Facility.
Paints, Latex or Water-Based	Hazardous Waste Facility	None
Paint Solvents and Thinners	Hazardous Waste Facility	Latex and water-based paints do not require solvents and thinners.

TABLE 11-1 ALTERNATIVE PRODUCTS FOR HOUSEHOLD HAZARDOUS WASTES		
Product	**Disposal**	**Alternative**
Pesticides and Herbicides		
Flea Powders	Hazardous Waste Facility	Use herbal baths for pets.
Ant and Roach Killers	Hazardous Waste Facility	Maintain good housekeeping practices.
Garden Insecticides and Weedkillers	Hazardous Waste Facility	Use organic gardening techniques, such as pulling weeds rather than using herbicides. Call an organic gardening club for more information.
Miscellaneous Products		
Household Batteries	Hazardous Waste Facility	Use rechargeable and electrical products.
Pool Acids	Hazardous Waste Facility	None
Photographic Chemicals	Hazardous Waste Facility	None

12.1 Costs, Revenues, and Revenue Sources

Costs associated with the County's HHW programs are shown below in Table 12-1.

TABLE 12-1
HHW Collection and Disposal Costs
FY 1989-90

Agency	Project	Administration	Disposal	Total Cost
Integrated Waste Management Department (IWMD)	Landfill Load Check	$664,582	$465,935	$1,130,517
	Landfill HHW*	$174,521	$979,065	$1,153,586
Fire Department	HHW	$308,428	$1,908,594	$2,217,022

*Landfill HHW collection facilities will be operational in the Summer of 1991. IWMD administration includes all programs operational cost.

12.2 Revenue Sources

The current revenue source for funding the administrative and disposal cost for the Fire Department HHW Collection Program is a $ .46 per ton surcharge on the landfill gate fee. Based on the total tonnage generated within the City of La Habra (80,436 tons in 1990 landfilled), the City contributes approximately $37,000 per year to the Fire Department's HHW Collection Program. The County is also eligible to apply for grants from the state, based on the amount of money paid into the Solid Waste Disposal Site Cleanup and Maintenance Account. Approximately $434,600 will be available from the Account based on payments during 1989. The revenue source for IWMD programs is the landfill gate fee with an allocation of $ .55 of the $17.75 per ton gate fee. Effective, July 1, 1991, the landfill gate fee will be $22.75 and the HHW Collection Program per ton surcharge will be $1.59.

The gate fee revenues comprise what is called the Waste Management Enterprise Fund. This fund is used to finance landfill operation costs and regional solid waste programs, including the HHW collection and landfill load check program. The rate is determined annually and is based on anticipated program costs and disposal quantities.

12.2 Implementation Program Costs

No additional costs as anticipated beyond those currently funded by landfill tipping fees.

12.3 Implementation Revenue

No revenues are anticipated from the implementation of the selected HHW program

12.4 Implementation Revenue Sources

Based upon the City of La Habra waste generation study conducted by the Orange County Integrated Waste Management Department, the City will contribute $37,000 for funding collection, recycling and destruction of HHW generated within the jurisdictional boundaries of La Habra.

12.5 Monitoring Costs

Anticipated costs associated with monitoring the effectiveness of the HHW program include for the curbside waste analysis and questionnaire development/analysis.

12.6 Monitoring Revenue

No revenues are anticipated from the monitoring of the selected HHW program

12.7 Monitoring Revenue Sources

Monitoring Revenue sources will consist of a combination of franchise fees and end user fees.

LIMITATIONS

This report was prepared in general accordance with the accepted standard of care that existed in Southern California at the time the report was written. It should be recognized that determining all possible planning scenarios cannot be contemplated or evaluated. Judgements leading to conclusions and recommendations are generally made with an incomplete knowledge of the existing conditions. Kleinfelder should be notified for additional consultation if the client wishes to reduce the uncertainties beyond the level associated with this report. No warranty, expressed or implied, is made.

This report may be used only by the Client and appropriate agency and only for the purposes stated, within a reasonable time from its issuance. Land use, site conditions (both on site and off site) or other factors may change over time, and additional work may be required with the passage of time. Any party other than the Client who wishes to use this report shall notify Kleinfelder of such intended use by executing the "Application for Authorization to Use" which follows this document as an Appendix. Based on the intended use of the report, Kleinfelder may require that additional work be performed and that an updated report be issued. Noncompliance with any of these requirements by the Client or anyone else will release Kleinfelder from any liability resulting from the use of this report by any unauthorized party.

APPLICATION FOR AUTHORIZATION

TO USE

_____
(Document and Date)

TO: Kleinfelder, Inc.
1370 Valley Vista Drive, Suite 150
Diamond Bar, California 91765

Attention: Russell E. Erbes, Regional Manager

FROM: _____
Name of person/entity

_____
Address

_____
City, State, Zip Code

_____
Telephone Number

Gentlemen:

Applicant hereby applies for permission to use:

_____
(Repeat document name and date)

for the purpose(s) of:

_____
(state here why you wish to do what is contemplated as set forth above)

Applicant understands and agrees that the above-referenced document is copyrighted and that Kleinfelder, Inc. is the copyright owner and that unauthorized use or copying of such document is strictly prohibited without the express written permission of Kleinfelder, Inc. Applicant understands that Kleinfelder, Inc. may withhold such permission at its sole discretion, or grant such permission upon such terms and conditions as it deems acceptable, such as the payment of a re-use fee.

Date: _____

_____
Applicant

BY: _____
Name

its: _____
Title

APPENDIX A

Source of 7.5 pounds per household per year estimate:

In a 1986 study of household hazardous waste disposal in Marin County, the estimated weekly discard rate per household was 66.2 grams for all types of HHW, which is equivalent to 7.5 pounds per year per household. This estimate was based on sampling and weighing HHW collected from refuse containers at the curbside.

See Table 14 (pg. 38) and text on page 13-14 from:

Rathje, W.L., D.C. Wilson, and W.W. Hughes. *A Characterization of Household Hazardous Wastes in Marin County, California.* A Report to the Association of Bay Area Governments by The Garbage Project, Bureau of Applied Research in Anthropology/Department of Anthropology, University of Arizona. July 1987.

APPENDIX B

OPERATIONS PLAN

Orange County
Household Hazardous Materials
Collection Center

Huntington Beach Regional Collection Center

Prepared By

Richard Timm
Rainbow Transfer/Recycling Co., Inc.

and

Janice Oest
Orange County Fire Department
Hazardous Materials Program

August 1990